



## ***Nature's Cutest Symbiosis: The Bobtail Squid***

NAME \_\_\_\_\_

DATE \_\_\_\_\_

This handout supplements the I Contain Multitudes film [\*Nature's Cutest Symbiosis: The Bobtail Squid\*](#).

1. The bioluminescent glow of the light organ helps the bobtail squid \_\_\_\_\_.
  - a. camouflage itself on the sandy ocean floor.
  - b. signal and attract mates.
  - c. hide from predators and prey.
  - d. illuminate the ocean floor so it can locate prey.
2. The squid light organ has structural and functional similarities to an eye, including the ability to detect light. Explain why it is important to the squid's survival to be able to detect light as well as emit it.
3. Mutualism is defined as a close, prolonged association of two or more species that is of benefit to all participants. Explain how the relationship between the bobtail squid and *Vibrio fischeri* is an example of mutualism. Defend your claim with evidence.
4. If no *Vibrio fischeri* are present in the environment, what is most likely to happen during the development of the bobtail squid? \_\_\_\_\_.
  - a. The squid does not mature into an adult.
  - b. The light organ develops completely but does not glow.
  - c. The light organ does not develop completely.
  - d. The squid selects different prey as a source of food.
5. The bobtail squid and *Vibrio fischeri* serve as model organisms for studying cellular communication. Provide at least two examples of communication either between squid and bacteria or within bacteria from the film.

